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| 10/816,878 | 04/05/2004 | Hiroshi Ishihara | 251202US2 | 2667 |

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OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C.
1940 DUKE STREET
ALEXANDRIA, VA 22314

| EXAMINER | |
|---|---|
| VO, QUANG N | |

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentdocket@oblon.com
oblonpat@oblon.com
jgardner@oblon.com

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 10/816,878 | ISHIHARA, HIROSHI | |
| | Examiner | Art Unit | |
| | Quang N. Vo | 2625 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *08 September 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-30 and 41-56* is/are pending in the application.

4a) Of the above claim(s) *51 and 52* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-30 and 41-56* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

## DETAILED ACTION

### *Response to Arguments*

Applicant's arguments with respect to claims have been considered but are moot in view of the new ground(s) of rejection.

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 4-9, 11, 14-19, 21, 24-29, 41, 44-49 and 53-56 are rejected under 35 U.S.C. 103(a) as being unpatentable over Watanabe (US 2003/0081265).

Regarding claim 1, Watanabe discloses an image processing apparatus (e.g., figure 1) for generating graphics data according to picture description instructions based on original image data of full color (e.g., a draft is irradiated with a color source, and scanned, and an image is read from a reflected light from the draft by a four line colors CCD sensor, paragraph 0041), comprising: a chromatic tester configured to determine whether a pixel of the original image data is chromatic or achromatic (e.g., a color region identification section 8004 (a chromatic tester) for judging whether the noted pixel is chromatic or achromatic, paragraph 0109); a color converter configured to convert the pixel into CMYK data for printing according to one of a plurality of predetermined converting conditions (e.g., converting RGB signals block 8005, figure 7 to CMYK for printing block 9014, figure 8); and a converting condition designator

configured to designate (1) a first one of the predetermined converting conditions for the pixel determined as chromatic (e.g., color identification data stored in block 9005 (one of predetermined converting conditions), figure 8), (2) a second one of the predetermined converting conditions when the pixel is determined as achromatic and the image property of the pixel indicates the pixel is not characteristic of a photograph (e.g., black-and-white multivalued image data (achromatic data) stored in page memory 9002, figure 8, paragraph 0113. Note: the black and white multivalued image data stored in page memory 9002 and the photograph region identification data stored in page memory 9004. Thus the black and white multivalued image data not having characteristic of a photograph), the second one of the predetermined converting conditions being different from the first one of the predetermined converting conditions (e.g., the black and white multivalued image data stored in page memory 9002 is different predetermined converting condition by image synthesizer 9014, figure 8 comparing to the first one of the predetermined converting conditions which is color identification data stored in block 9005), and (3) the first one of the predetermined converting conditions when the pixel is determined as achromatic and the image property of the pixel indicates the pixel is characteristic of a photograph (e.g., a photograph region identification section 8003 for judging whether or not a noted pixel is a photograph region from the black-and-white (Bk) image data or the R, G, B image data, paragraph 0109).

Wantanabe differs from claim 1 in that he does not explicitly disclose an obtainer configured to determine whether an image property of the pixel indicates the pixel is

characteristic of a photograph, when the pixel is determined as achromatic by the chromatic tester.

Since Wantanbe discloses a photograph region identification section 8003 (obtainer) for judging whether or not a noted pixel is a photograph region from the black-and-white (Bk) image data (paragraph 0109). Thus the black-and-white image data determined by a color region identification section 8004 (a chromatic tester) and the noted pixel is judged if it is in a photograph region.

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to have recognized Wantanabe is having an obtainer configured to determine whether an image property of the pixel indicates the pixel is characteristic of a photograph, when the pixel is determined as achromatic by the chromatic tester, or at least obvious to provide functional part for performing an obtainer configured to determine whether an image property of the pixel indicates the pixel is characteristic of a photograph, when the pixel is determined as achromatic by the chromatic tester.

With regard to claim 4, Watanabe discloses wherein the predetermined condition used for the pixel determined as achromatic is any one of a K monochrome converting condition using a black color and a normal converting condition using cyan, magenta, yellow, and black colors (e.g., block 9001 and 9002 for black color and 9003 and 9013 for CMYK, figure 8).

With regard to claim 5, Watanabe discloses wherein said obtainer checks pixels in a predetermined area in the original image data to obtain the image property of the pixel (paragraph 0145).

With regard to claim 6, Watanabe discloses wherein the image property of the pixel is either one of a first image property of including any chromatic pixel in the pixels in the predetermined area and a second property of not including any chromatic pixel in the pixels in the predetermined area, and said converting condition designator designates the K monochrome converting condition to the pixel having the first image property (paragraphs 0144, 0145).

With regard to claim 7, Watanabe discloses wherein the predetermined area comprises a predetermined number of sequential pixels immediately preceding the pixel in a main scanning direction (paragraph 0097).

With regard to claim 8, Watanabe discloses wherein the predetermined area comprises a predetermined number of sequential pixels immediately succeeding the pixel in a main scanning direction (paragraph 0097).

With regard to claim 9, Watanabe discloses wherein the predetermined area comprises a predetermined number of sequential pixels immediately preceding and succeeding the pixel in a main scanning direction (paragraphs 00097).

With regard to claim 11, the subject matter is similar to claim 1. Therefore claim 11 is rejected as set forth above for claim 1.

With regard to claim 14, the subject matter is similar to claim 4. Therefore claim 14 is rejected as set forth above for claim 4.

With regard to claim 15, the subject matter is similar to claim 5. Therefore claim 15 is rejected as set forth above for claim 5.

With regard to claim 16, the subject matter is similar to claim 6. Therefore claim 16 is rejected as set forth above for claim 6.

With regard to claim 17, the subject matter is similar to claim 7. Therefore claim 17 is rejected as set forth above for claim 7.

With regard to claim 18, the subject matter is similar to claim 8. Therefore claim 18 is rejected as set forth above for claim 8.

With regard to claim 19, the subject matter is similar to claim 9. Therefore claim 19 is rejected as set forth above for claim 9.

Referring to claim 21:

Claim 21 is the method claim corresponding to operation of the device in claim 1 with method steps corresponding directly to the function of device elements in claim 1. Therefore claim 21 is rejected as set forth above for claim 1.

Referring to claim 24:

Claim 24 is the method claim corresponding to operation of the device in claim 4 with method steps corresponding directly to the function of device elements in claim 4. Therefore claim 24 is rejected as set forth above for claim 4.

Referring to claim 25:

Claim 25 is the method claim corresponding to operation of the device in claim 5 with method steps corresponding directly to the function of device elements in claim 5. Therefore claim 25 is rejected as set forth above for claim 5.

Referring to claim 26:

Claim 26 is the method claim corresponding to operation of the device in claim 6 with method steps corresponding directly to the function of device elements in claim 6. Therefore claim 26 is rejected as set forth above for claim 6.

Referring to claim 27:

Claim 27 is the method claim corresponding to operation of the device in claim 7 with method steps corresponding directly to the function of device elements in claim 7. Therefore claim 27 is rejected as set forth above for claim 7.

Referring to claim 28:

Claim 28 is the method claim corresponding to operation of the device in claim 8 with method steps corresponding directly to the function of device elements in claim 8. Therefore claim 28 is rejected as set forth above for claim 8.

Referring to claim 29:

Claim 29 is the method claim corresponding to operation of the device in claim 9 with method steps corresponding directly to the function of device elements in claim 9. Therefore claim 29 is rejected as set forth above for claim 9.

Referring to claim 41:

Claim 41 is the computer readable medium storing computer instructions claim corresponding to operation of the device in claim 1 with method steps corresponding directly to the function of device elements in claim 1. Therefore claim 41 is rejected as set forth above for claim 1.

Referring to claim 44:

Claim 44 is the computer readable medium storing computer instructions claim corresponding to operation of the device in claim 4 with method steps corresponding directly to the function of device elements in claim 4. Therefore claim 44 is rejected as set forth above for claim 4.

Referring to claim 45:

Claim 45 is the computer readable medium storing computer instructions claim corresponding to operation of the device in claim 5 with method steps corresponding directly to the function of device elements in claim 5. Therefore claim 45 is rejected as set forth above for claim 5.

Referring to claim 46:

Claim 46 is the computer readable medium storing computer instructions claim corresponding to operation of the device in claim 6 with method steps corresponding directly to the function of device elements in claim 6. Therefore claim 46 is rejected as set forth above for claim 6.

Referring to claim 47:

Claim 47 is the computer readable medium storing computer instructions claim corresponding to operation of the device in claim 7 with method steps corresponding directly to the function of device elements in claim 7. Therefore claim 47 is rejected as set forth above for claim 7.

Referring to claim 48:

Claim 48 is the computer readable medium storing computer instructions claim corresponding to operation of the device in claim 8 with method steps corresponding directly to the function of device elements in claim 8. Therefore claim 48 is rejected as set forth above for claim 8.

Referring to claim 49:

Claim 49 is the computer readable medium storing computer instructions claim corresponding to operation of the device in claim 9 with method steps corresponding directly to the function of device elements in claim 9. Therefore claim 49 is rejected as set forth above for claim 9.

With regard to claim 53, Watanabe discloses obtaining the image property of the pixel by determining whether the pixel is part of a photographic image (e.g., a photograph region identification section 8003 for judging whether or not a noted pixel is a photograph region from the black-and-white (Bk) image data or the R, G, B image data, paragraph 0109).

With regard to claim 54, Watanabe discloses means for expanding text or graphics data into bitmap data based on color instruction data prior to testing the bitmap data using the chromatic tester (e.g., the color multivalued CoDec (coder, decoder) 9009 compresss/extends the image data, paragraphs 0120, 0121, figure 8).

With regard to claim 55, Watanabe discloses means for determining the image property of the pixel based on user input to the image processing apparatus (e.g., user I/F section 6, figure 1, paragraphs 0167, 0168).

With regard to claim 56, Watanabe discloses means for determining the image property of the pixel by examining area information of an object specified in the picture description instruction (e.g., image handling section 6000 for storing different kind of image data (pixel), figure 8, paragraphs 110-119).

Claims 2-3, 10, 12-13, 20, 22-23, 30, 42-43 and 50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Watanabe (US 2003/0081265) as applied to claim 1 above, and further in view of Yokochi (US 2003/0202193).

Regarding claim 2, Watanabe differs from claim 2 in that he does not disclose wherein said chromatic tester determines the pixel as achromatic when values of RGB color components are identical to each other.

Yokochi discloses wherein said chromatic tester determines the pixel as achromatic when values of RGB color components are identical to each other (paragraph 0109).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Watanabe to include wherein said chromatic tester determines the pixel as achromatic when values of RGB color components are identical to each other as taught by Yokochi. It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Watanabe by the teaching of Yokochi to determine achromatic data from RGB color.

Regarding claim 3, Watanabe differs from claim 2 in that he does not explicitly disclose wherein said chromatic tester determines the pixel as achromatic when differences in data value among RGB components of the pixel fall within respective predetermined threshold value.

Yokochi discloses wherein said chromatic tester determines the pixel as achromatic when differences in data value among RGB components of the pixel fall within respective predetermined threshold values (paragraph 0109).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Watanabe to include wherein said chromatic tester

determines the pixel as achromatic when differences in data value among RGB components of the pixel fall within respective predetermined threshold values as taught by Yokochi. It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Watanabe by the teaching of Yokochi to determine achromatic data from RGB color accurately.

With regard to claim 10, Watanabe differs from claim 10 in that he does not explicitly disclose wherein the predetermined area is formed with an m-by-n matrix surrounding the pixel, m and n being positive integer values greater than zero.

Yokochi discloses wherein the predetermined area is formed with an m-by-n matrix surrounding the pixel, m and n being positive integer values greater than zero (paragraph 0090).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Watanabe to include wherein the predetermined area is formed with an m-by-n matrix surrounding the pixel, m and n being positive integer values greater than zero as taught by Yokochi. It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Watanabe by the teaching of Yokochi to have edge detection operation for image quality (paragraph 0090).

With regard to claim 12, the subject matter is similar to claim 2. Therefore claim 12 is rejected as set forth above for claim 2.

With regard to claim 13, the subject matter is similar to claim 3. Therefore claim 13 is rejected as set forth above for claim 3.

With regard to claim 20, the subject matter is similar to claim 10. Therefore claim 20 is rejected as set forth above for claim 10.

Referring to claim 30:

Claim 30 is the method claim corresponding to operation of the device in claim 10 with method steps corresponding directly to the function of device elements in claim 10. Therefore claim 30 is rejected as set forth above for claim 10.

Referring to claim 22:

Claim 22 is the method claim corresponding to operation of the device in claim 2 with method steps corresponding directly to the function of device elements in claim 2. Therefore claim 22 is rejected as set forth above for claim 2.

Referring to claim 23:

Claim 23 is the method claim corresponding to operation of the device in claim 3 with method steps corresponding directly to the function of device elements in claim 3. Therefore claim 23 is rejected as set forth above for claim 3.

Referring to claim 42:

Claim 42 is the computer readable medium storing computer instructions claim corresponding to operation of the device in claim 2 with method steps corresponding

directly to the function of device elements in claim 2. Therefore claim 42 is rejected as set forth above for claim 2.

Referring to claim 43:

Claim 43 is the computer readable medium storing computer instructions claim corresponding to operation of the device in claim 3 with method steps corresponding directly to the function of device elements in claim 3. Therefore claim 43 is rejected as set forth above for claim 3.

Referring to claim 50:

Claim 50 is the computer readable medium storing computer instructions claim corresponding to operation of the device in claim 10 with method steps corresponding directly to the function of device elements in claim 10. Therefore claim 50 is rejected as set forth above for claim 10.

## ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Quang N. Vo whose telephone number is (571)270-1121. The examiner can normally be reached on 7:30AM-5:00PM Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David K. Moore can be reached on (571)272-7437. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Q. N. V./
Examiner, Art Unit 2625

/David K Moore/
Supervisory Patent Examiner, Art Unit 2625